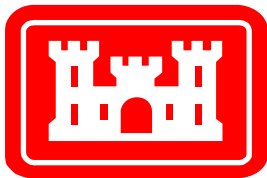


West Onslow Beach and New River Inlet (Topsail Beach),  
North Carolina

**Integrated General Reevaluation Report and  
Environmental Impact Statement for West  
Onslow Beach and New River Inlet (Topsail  
Beach), North Carolina**

**PEER REVIEW PLAN**

5 December 2007



**US Army Corps  
of Engineers**  
Wilmington District

## **ACRONYMS & ABBREVIATIONS**

**AFB** – Alternative Formulation Briefing

**CESAW** – US Army Corps of Engineers, South Atlantic, Wilmington

**CWRB** – Civil Works Review Board

**EIS** – Environmental Impact Statement

**EPR** – External Peer Review

**FCSA** – Feasibility Cost Sharing Agreement

**FEIS** – Final Environmental Impact Statement

**FSM** – Feasibility Scoping Meeting

**GRR** – General Reevaluation Report

**HQ** – Headquarters

**ITR** – Independent Technical Review

**LOI** – Letter of Intent

**NEPA** – National Environmental Policy Act

**OVEST --** Office of the Chief of Engineers Value Engineering Study Team

**PCX-CSDR** - National Planning Center of Expertise for Coastal Storm Damage  
Reduction

**PDT** – Project Delivery Team

**PMP** – Project Management Plan

**PRP** - Peer Review Plan

**P&S** – Plans & Specifications

**SAD** – South Atlantic Division

**Walla Walla DX** - Walla Walla District Directorate of Expertise for Civil Works  
Cost Engineering

## 1. Introduction

This Peer Review Plan (PRP) is a collaborative product of the project delivery team (PDT), the National Planning Center of Expertise for Coastal Storm Damage Reduction (PCX-CSDR) and the Walla Walla District Directorate of Expertise for Civil Works Cost Engineering (Walla Walla DX). The PCX-CSDR shall manage the PRP, which for this study includes Independent Technical Review (ITR) only. External ITR is not deemed necessary for the initial review phase by CESAW. Each of the following paragraphs (a. through j.) correspond to the guidance provided in paragraphs 6.a. through j. of Engineering Circular 1105-2-408, Planning - Peer Review of Decision Documents, 31 MAY 2005.

## 2. The Peer Review Plan

**a. Title, Subject, and Purpose of the Decision Document.** The *Integrated General Reevaluation Report and Environmental Impact Statement for West Onslow Beach and New River Inlet (Topsail Beach), NC* shall be the decision document. The Topsail Beach GRR is being pursued under the Corps of Engineers' Construction General (CG) Program. The project was authorized by Section 101 of the Water Resources Development Act (WRDA) of 1992, which states:

*Except as provided in this section, the following projects for water resources development and conservation and other purposes are authorized to be carried out by the Secretary substantially in accordance with the plans, and subject to the conditions, recommended in the respective reports designated in this section:*

*(15) WEST ONSLOW AND NEW RIVER INLET, NORTH CAROLINA. – The project for flood control, West Onslow and New River Inlet, North Carolina: Report of the Chief of Engineers, dated November 19, 1991, at a total cost of \$14,100,000, with an estimated Federal cost of \$7,600,000 and an estimated non-Federal cost of \$6,500,000.*

The Energy and Water Development Appropriations Act for Fiscal Year 2001, Public Law 106-377, included funds for the Government to initiate a General Reevaluation Report (GRR) of the currently authorized West Onslow Beach and New River Inlet (Topsail Beach) Shore Protection Project, and the remaining shoreline at Topsail Beach.

The study area of the GRR includes all of the shoreline of Topsail Beach. Topsail Beach is located at the southern end of Topsail Island adjacent to New Topsail Inlet in Pender County on the central North Carolina coast. The study area lies entirely within North Carolina's Congressional District 7.

The Topsail Beach GRR is investigating measures and plans for hurricane and storm damage reduction. The study is also documenting incidental recreation benefits. Being located between Cape Fear and Cape Lookout, Topsail Beach is a frequent target for hurricanes and tropical storms tracking along the mid-Atlantic coast. In addition to these

direct landfalling storms, many storms that have passed offshore without making landfall have also impacted the study area. Local impacts to the study area varied depending on the landfall location and strength of the storm.

Typical solutions considered for this study area are berm and dune beachfills using material dredged from offshore borrow sites, and in some cases building relocations, or coastal structures such as groins or breakwaters.

The estimated range of initial construction cost for the various alternatives varies between \$20 million and \$40 million, and estimated annual renourishment costs are approximately \$9 million. Renourishment would continue through 50 years if the project is authorized. The selected plan for recommendation has estimated initial costs of \$31 million.

Key PDT members are shown in the table below.

ROLE	NAME	ORGANIZATION
Project Manager	Tom Blount	CESAW-PM-C
Program Manager	Tony Carter	CESAW-PM-P
Lead Planner	Doug Greene	CESAW-TS-PF
Biologist	Jenny Owens	CESAW-TS-PE
Biologist	Doug Piatkowski	CESAW-TS-PE
Cultural Resources	Richard Kimmel	CESAW-TS-PE
Coastal/H&H	Tony Young	CESAW-TS-EC
Geotechnical	Ray Livermore	CESAW-TS-EG
Cost Engineering	John Caldwell	CESAW-TS-EE
Economics	Frank Snipes	CESAW-TS-PF
Economics	George Ebai	CESAW-TS-PF
Real Estate	Belinda Estabrook	CESAS-RE-RP

The PDT also includes the non-Federal Sponsor, stakeholders, and resource agencies.

For more information regarding the PRP, the project manager for the GRR may be contacted as follows:

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## **Independent Technical Review Team Leaders**

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National Planning Center of Expertise for Coastal Storm Damage  
Reduction PCX-CSDR

US Army Corps of Engineers – North Atlantic Division  
CENAD-PSD-P

<https://rbc.nado.ds.usace.army.mil/Hurricane%20and%20Storm%20Damage/HSDP-PCX%20Web%20Page.htm>

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Walla Walla District Directorate of Expertise for Civil Works Cost  
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CENWW-EC-X

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**Email:** [Kim.C.Callan@nww01.usace.army.mil](mailto:Kim.C.Callan@nww01.usace.army.mil)

**b. External Peer Review.** EC 1105-2-408 provides the process for deciding whether or not to employ external peer review. The following is an excerpt of EC section 9.a: *Decision documents covered by this Circular will undergo EPR if there is a vertical team consensus (involving district, major subordinate command and Headquarters members) that the covered subject matter (including data, use of models, assumptions, and other scientific and engineering information) is novel, is controversial, is precedent setting, has significant interagency interest, or has significant economic, environmental and social effects to the nation. Decision documents covered by this Circular that do not meet the standard shall undergo ITR as described in paragraph 8, above.*

Please see the External Peer Review Decision Checklist below (1 - 5).

1. Novel subject matter? No, this is a typical storm damage reduction project.
2. Controversial subject matter? No, this is a typical storm damage reduction project with no controversial subject matter anticipated.

3. Precedent setting? No, this is a typical storm damage reduction project similar to several preceding projects.
4. Unusually significant interagency interest? No, this is a typical storm damage reduction project and normal coordination with other agencies is anticipated.
5. Unusually significant economic, environmental, and social effects to the nation? No, the anticipated costs and effects are not unusual. Estimated construction costs of about \$32 million will not exceed the \$40 million trigger amount suggested for recommendation of an EPR.

**Decision:** The PDT suggests that an Independent Technical Review by a US Army Corps of Engineers team external to the project district, CESAW, will be sufficient to comply with the spirit of EC 1105-2-408, Planning - Peer Review of Decision Documents, dated 31 May 2005. It is not anticipated that any new methodologies will be used in the analysis and preparation of the Integrated GRR & EIS, or that any of the data collected or analyzed would be considered influential scientific data.

**c. Anticipated Peer Review Schedule.**

REVIEW PHASE	COMPLETION DATE	
<b>In-House Review AFB Materials</b>	<b>Spring</b>	<b>2004</b>
Alternative Formulation Briefing (AFB)	July	2004
<b>ITR Draft GRR &amp; EIS</b>	<b>Summer</b>	<b>2005</b>
Draft GRR & EIS / Policy Review	Summer	2006
Draft GRR & EIS / NEPA Public Review	Summer	2006
Civil Works Review Board	March	2008
Final EIS / NEPA Public Review (MSC Commanders Public Notice)	April	2008

**d. External Peer Review and Procedure.** For this GRR study, PCX-CSDR will make a recommendation whether or not External Peer Review is to be conducted, and if an EPR is conducted, the procedure to be followed.

**e. Public Comment on Decision Document.** As each is completed, the Draft and the Final Integrated GRR & EIS will be disseminated to resource agencies, interest groups, and the public as part of the National Environmental Policy Act (NEPA) environmental compliance review, shown in the Anticipated Peer Review Schedule. Public entities and private individuals may also review and comment on draft documents as members of the PDT. Resources agencies received copies of the AFB Pre-conference Materials along with an invitation to attend the AFB.

**f. Provision of Public Comments to Reviewers.** All significant and relevant public comments will be provided as part of the review package to Peer Reviewers as they are available and may include but not be limited to: scoping letters, meeting minutes, other received letters, and emails.

**g. Anticipated Number of Reviewers.** The final determination of the number of reviewers required will be made by PCX-CSDR. The number of reviewers may vary as required. (See Attachment 2.)

**h. Primary Review Disciplines and Expertise.** The PCX-CSDR will make the final determination for the discipline type and number needed of reviewers. The minimal number of different disciplines expected is nine, as shown in the table below. As the Integrated GRR & EIS proceeds, additional reviewing disciplines may be added.

PRELIMINARY REVIEW DISCIPLINES FOR ITR/EPR
Planning
Environmental / NEPA Compliance
Cultural Resources
Economics
Recreation
Coastal Engineering / Hydrology & Hydraulics
Geotechnical Engineering
Cost Estimating
Real Estate

**i. Selection of External Peer Reviewers.** The PCX-CSDR and associated Vertical Team shall make the final determination for the discipline type and number needed of reviewers as well as which, if any, External Peer Reviewers are needed. For this Integrated GRR & EIS, this decision is the responsibility of the PCX-CSDR.

**j.** The public will have opportunities to review the Integrated GRR & EIS as required by the NEPA compliance process. The public will also have access to the PCX-CSDR documentation on the ITR and, if any, the EPR.

**k. Miscellaneous Items.**

(1) **DrChecks.** A software program useful to coordinate various document comments and responses electronically, DrChecks, will be used to conduct the ITR.

(2) **Model Certification.** All models developed or modified during for use in this study will be subjected to ITR and will be certified as required by Engineer Circular (EC) 1105-2-407, U.S. Army Corps of Engineers. *Planning Models Improvement Program: Model Certification.*

There is one model used during this study that was developed for previous studies and at the suggestion of the AFB, was modified during this study. That model is the Generalized Risk AND Uncertainty - Coastal (GRANDUC) model for estimating

damages. The model was included in development of the Draft Integrated GRR & EIS which had an ITR in 2005. Wilmington District is currently coordinating GRANDUC with the PCX-CSDR.



# ATTACHMENT 1

## PEER REVIEW PLAN CHART

PEER REVIEW PLAN	
FEASIBILITY PHASE	
Study Product or Milestone	Review by
Feasibility Scoping Meeting	( not part of this study)
Value Engineering Package	OVEST PDT
Alternative Formulation Briefing	PDT, Supervisors, In-House Independent Review Team
Draft GRR & EIS Policy	PDT, Supervisors, ITR Team, OC HQ, SAD
CWRB Review Package	PDT, Supervisors
Final GRR & EIS Risk Analysis Cost Engineering	CWRB Walla Walla DX Walla Walla DX
Chief of Engineers Report	HQ→ ASA(CW)→ OMB→ Congress

Reference External Peer Review Decision Checklist in Paragraph 2.b., questions 1 - 5: if any changes occur in checklisted items, the vertical team will determine if External Peer Review (EPR) will be required. A decision regarding EPR is requested in writing from SAD and HQ Regional Integration Team Leader (RIT).

A Scoping Letter during the Reconnaissance Phase provided the Public the opportunity to share any known concerns.

## ATTACHMENT 2

### ITR APPROVAL REQUEST

Establishment of ITR responsibility has been an evolving process. Skilled and experienced personnel who have not been associated with the development of the Topsail Beach GRR products have been previously requested by Wilmington District Plan Formulation and Economics to serve as ITR members. EPR members will be determined by the PCX-CSDR

Key ITR members are shown in the table below.

ROLE	NAME	ORGANIZATION
Planning / Plan Formulation		CENAP-
Environmental		CENAP-
Cultural Resources		CENAP-
Coastal/H&H		CENAP-
Geotechnical		CENAP-
Cost Engineering		CENAP-
Economics		CENAP-
Recreation		CESWT
Real Estate		CENAB-

Below are the biographies for the ITR Team Members.

#### **Plan Formulation / Planning**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Environmental**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Economics**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Cost Estimating**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Coastal Engineering / Hydrology & Hydraulics**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Geotechnical Engineering**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Real Estate**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Recreation**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX

### **Cultural Resources**

**Name:** --

**Grade and position title:** GS-XX, XXIST

**Organization:** XX District, XX Division (CEXXX)

**Education:** XX

**Years of experience:** XX

**Major achievements and projects:** XX

**Other awards and relevant accomplishments:** XX

**Professional Memberships:** XX

**Training:** XX